



## MEMORANDUM

TC

Agenda Item No. 1 (E) 3

TO: Honorable Dennis C. Moss, Chairperson  
and Members, Transportation Committee

DATE: June 17, 2004

FROM:   
George M. Burgess  
County Manager

SUBJECT: Feasibility Report: Call  
Boxes at Bus Passenger  
Shelters

The following report responds to Commissioner Martinez's request to evaluate the feasibility of providing call boxes in Miami-Dade Transit's (MDT) service area.

### **Call Box Installation Plan**

MDT will implement the call box program in two phases. The first phase involves installing the call boxes at bus passenger shelters; Phase II will eventually expand call boxes to the rest of the transit system.

Since Phase I will address bus shelter locations only, MDT has initiated discussions with CEMUSA, the County's bus passenger shelter contractor for the unincorporated areas of the County, regarding the feasibility of a pilot call box program. CEMUSA has had experience with locating call boxes within its shelters in other contracts abroad, and has indicated a willingness to work with the department to amend the existing contract as necessary to accommodate the pilot or any future program. In addition, the bus bench RFP that is being prepared will also include specifications to accommodate a call box program. Plans are already underway to install two pilot call boxes at bus shelter sites to evaluate the effectiveness of the technology. Units located at bus shelters will be solar powered.

Phase II of the plan expands the program to install call boxes throughout the MDT service area, similar to the placement of call boxes along the Florida Turnpike. The actual distance between the call boxes will be determined by existing bus shelter/bus stop locations. Countywide installation will require approximately 1,230 call boxes, with placement alternating at half mile intervals on either side of a route (northbound/southbound or eastbound/westbound, as the case may be). In effect, this puts a call box at one mile intervals on each side of the route.

Call boxes are typically used to provide citizens, who commute using motor vehicles and/or public transportation access, with emergency contact personnel or transportation/transit information. The Florida Department of Transportation (FDOT) currently uses radio call box technology for its Turnpike system.

MDT has evaluated call box technology and its use in other systems in an effort to evaluate the most cost-effective and reliable program. Based on this research, the two technologies being considered are hard wired and radio. A "hard wired" system will require Bell South installing telephone wires to each call box. At some locations, this will require trenching and running the wires underground. This more disruptive method is not deemed feasible by the department.

The second and preferred method uses radio technology. Older systems such as the call boxes on the Florida Turnpike use an old analog radio network. MDT will investigate using digital cellular radio service provided by public cellular service providers. This method would also afford speedier installation of functional units.

For Phase I installation at bus shelters, CEMUSA subcontracts with PELPO (a US based company) in France. This company works with radio, cell, and phone lines to operate call boxes out of CEMUSA's shelters. CEMUSA has advised MDT that it can accommodate MDT's needs for Phase I.

For Phase II, MDT has explored the feasibility of wireless units with Motorola and Code Blue, both of which have local representatives through Connectivity Inc. (Motorola) and Telecom Engineering Inc. (Code Blue). Both companies offer a wireless call box equipped with the latest technology. (These companies also provided the older analog technology which is slowly being discontinued.)

Motorola provided FDOT with its call boxes (these units are wireless, but operate on data only and are approximately 20 years old). However, they have provided single channel voice units to the Cities of San Jose and Sacramento in California. At this time, MDT has received no further information on these voice units but will continue to investigate their feasibility.

MDT was able to obtain more information from Code Blue, which services three local entities. Most of Code Blue's emergency phone installations are "hard wired" with a standard telephone land line. Two of the three local reference sites below are "hard wired" systems; the third system (in the City of Aventura) is solar powered and cellular.

The City of Miami Beach has Code Blue pedestal units installed along the boardwalk, which are used for emergency assistance and information along the beach. These units experience the harshest of weather conditions in terms of heat, humidity, and salt air, as well as a great deal of traffic and use. These units are under a formal maintenance contract with Telecom Engineering, which includes monthly preventive maintenance and cleaning along with a remote testing service to ensure proper operation of the system.

The Miami-Dade College campus also maintains a wide variety of Code Blue units, including pedestals and CB VIII wall/pole mount units. These units are all hardwired and are installed all over the various campus facilities and are used for safety and campus information.

The Code Blue phones installed for the City of Aventura are used for Emergency 911 service around the jogging track in the City. These units have been installed for at least five years. Their cellular interface is an older version based on analog cellular services. This site demonstrates the durability of this kind of phone system. The City does not keep a maintenance contract for the service of any of their Code Blue units, and Code Blue's local vendor, Telecom Engineering, responds to service calls when contacted by the City. However, Code Blue has advised MDT that the Aventura installation utilizes the older analog technology, and that newer technology is available that would be more powerful and reliable.

Any and all equipment installed will comply with local, state, and federal codes, including any Americans with Disabilities Act (ADA) regulations.

**MDT's Current Capability:**

**South Miami-Dade Busway:** Presently equipped with pay phones for 911 and 511 access.

**Metrorail Stations and Cars:** Currently equipped with "blue" passenger assistance telephones near entry gates and "red" emergency telephones on station platforms. Both of these connect to MDT's Central Control facility. Pay phones are also located in select locations at Metrorail stations. Each Metrorail car is equipped with an intercom system for passengers to contact the Train Operator.

**Metromover Stations and Vehicles:** Currently equipped with "red" passenger assistance phones. Each Mover car has an emergency phone which connects to MDT's Central Control.

**Funding and Schedule**

Cost estimates and funding for the installation and maintenance of call boxes are currently being evaluated. MDT can install the first two boxes within 60 days. After the two call boxes are tested for concept, MDT will develop an installation plan to begin installing call boxes at a rate that can be supported by available funding. After that, the call boxes can be installed relatively quickly (up to 5 or 6 units a day). The costs of implementing the pilot program will help the department to determine the eventual project cost. At this time, exact figures are unavailable.

MDT is also reviewing the possibility of funding portions of the program through a partnership with CEMUSA. It is possible that any costs incurred for installation may be deducted from revenues owed the County from the existing shelter program.

  
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Surface Transportation Manager